

CHAPTER 3

ENGINEERING LICENSURE IN CALIFORNIA AND ITS COMPARISON STATES

The History of Engineering Licensure in California

The variety of specialties within engineering reflects a divergent history. While many branches of engineering grew out of traditional crafts, at least two (electrical and chemical engineering) grew out of the physical sciences and the industries that depended upon the application of physics and chemistry to extractive and manufacturing pursuits. With the exception of electrical and chemical engineering, evolution within most engineering branches was from the technical to the scientific, from "rule of thumb" or "cut and try" methods to more scientific and research-based approaches to problem solving.

Mechanical engineering constituted a hybrid with its practitioners following separate career paths. Some of the more powerful mechanical engineers in the nineteenth century had been skilled mechanics who had become shop managers or owners while others were scientifically trained engineers who took advantage of the growing opportunities in corporate employment. The early American Society of Mechanical Engineers (ASME) was dominated by a "shop-culture" elite who had become leaders of industry. In contrast, university trained mechanical engineers emphasizing academic credentials and scientific training sought their success through promotion into management within large industrial corporations.

The history of engineering licensure in California that began in the early 20th century had its roots in these 19th century developments. Civil engineering as a profession grew out of the early canal and railroad building efforts, forming the first professional organization of engineers, the American Society for Civil Engineering in 1852. The American Institute of Mining and Metallurgical Engineering followed in 1871, the American Society of Mechanical Engineers in 1880, the American Institute of Electrical Engineers in 1884 and, in 1908, the American Institute of Chemical Engineers.¹ With the exception of metallurgical engineering, the licensing of engineers in California followed a similar order beginning with civil engineers in 1929 and adding chemical, electrical, mechanical and petroleum engineering almost 20 years later (1947). The recognition of additional disciplines in the 1960s and 70s reflected either growth in scientific knowledge (nuclear engineering), the application of engineering principles to new areas (agricultural, fire protection, corrosion and traffic engineering), or the new 20th century focus on the social organization of production (control systems, manufacturing, industrial, quality and safety engineering).² The pace of licensing mirrored the post World War II growth of the state and its industries. California's refineries, the expansion of its cities and agribusiness and the water projects needed to support both spurred the addition of new engineering licenses. (Table 3.1)

Title and Practice Act Disciplines

Following the licensing of civil and structural engineers, California introduced a distinction between two types of engineering licenses that remains unique to the state. The licensing of civil engineers prohibits all others from *practicing* civil engineering. The subsequent licensing of chemical, electrical, mechanical, petroleum, metallurgical and industrial engineers in the 1940s

¹ David F. Noble, *America by Design: Science, Technology, and the Rise of Corporate Capitalism*. New York; Alfred Knopf, 1977. See especially Chapters 1, 3 and 10.

² *Ibid.*, pp. 258 - 261.

and 1960s prohibits others from *using the title* of their discipline, but permits anyone to practice it. In the late 1960s, electrical and mechanical engineering were converted to practice protection while the disciplines of the 1970s were given title protection only. Structural and geotechnical engineering were defined as title authorities, an amalgam of practice and title protection. Licensed civil engineers may take additional exams to use the titles of structural or geotechnical engineer; but they may practice either type of engineering with their civil license.

With the exception of civil engineering, the practice act disciplines are minimally defined in the Professional Engineers Act, Sections 6702 of the Business and Professions Code. Mechanical and electrical engineering and the title act disciplines are defined in Rules of the Board for Professional Engineers and Land Surveyors, California Code of Regulations Title 16, Chapter 5, paragraph 404. These definitions describe the purview of each discipline and specifically restrict the title act disciplines from practicing civil, electrical or mechanical engineering. Practice act disciplines, however, may engage in any engineering activities as long as they are "incidental" or "supplementary" to work in their branch of engineering.

Thus, a hierarchy is established between the practice and title disciplines that is reflected in placement in the Business and Professional code vs. Board Rules, in allowable one-directional overlap by the practice disciplines into title areas and prohibition of the reverse, and in a complaint process that can only reinforce practice protection. Since it is against the law to practice civil, mechanical and electrical engineering, no action can be taken against those who practice in the title disciplines. On the other hand, action *can* be taken against title branch engineers who do incidental work in a practice discipline.

It is a reasonable question whether there are clear and sufficient differences between the branches of engineering to justify differential treatment of the various disciplines. No other state allows unlicensed persons to practice any branch of engineering and most states of any size do not even distinguish the branches, offering licensing as a "professional engineer" to those completing a prescribed set of exams. When this question was posed at the Forum on Engineering Licensing 2002 and on DCA's website announcing the forum, participants and others offering public comment could not identify any criteria that distinguish practice and title disciplines other than the legal distinctions that have arisen with the historical development of engineering in this state.

According to the participants, the distinction between practice and title disciplines is based on variations in degree of specialization, the number practicing in the discipline, and the historical period in which the discipline developed. Practice act disciplines are generally older and more populous, are largely associated with the built environment, and have a more generalized knowledge base. The title act disciplines are more specialized and have developed more recently with rapid growth in the development of new technologies and the application of the physical sciences (physics, chemistry, biology) to problems in the physical and medical environment (air and water pollution, health-related technologies). The unregulated disciplines are also highly specialized and either attract so few engineers that they do not justify an NCEES exam or they work in environments where the oversight that regulation provides is not desired and the impact of their work on public health and safety is unclear.

Licensing history in California is not completely consistent with these perceptions. Although civil is unquestionably the oldest discipline, mining and metallurgical engineering predated electrical, mechanical and chemical but it wasn't licensed until twenty years later. And despite their age, electrical and mechanical were initially given only title protection. The number practicing in these areas when they were originally licensed hasn't survived; but it is assumed that the

relative numbers were similar, electrical would have outnumbered civil and mechanical and thus justified practice protection from the beginning. Finally, it might be difficult to defend an argument that chemical engineering represents a less generalized knowledge base than the practice disciplines.

Chapters 4,5, and 6 of this report explore what distinctions, if any, can be documented between California's practice and title disciplines in terms of their employment location, examination pass rates, registration rates, number and types of complaints and insurance claims. An evaluation can then be made whether the specific differences support maintaining a distinction in law between these groups of disciplines.

Generic vs. Discipline Based Licensing

Two licensing systems are in use in the United States. Most states have generic licensing, registering those who passed the Fundamentals of Engineering and at least one specialty exam as "Professional Engineers." Engineers in these states stamp plans with a seal that identifies them as a "Professional Engineer." In states with discipline-based licensing, those passing the Fundamentals and a specialty exam are licensed under the specialty that is usually noted on the seal. California's use of practice and title protection locks it into a discipline-based licensing system.

While not unique, discipline-based licensing is relatively uncommon, used primarily in 16 smaller and more rural states and territories. Massachusetts and California are the only large states to license in this way. The 16 states vary widely in the number of specialties offered for licensing, ranging from six in Rhode Island (chemical, civil, electrical, environmental, mechanical and structural) to 46 in Massachusetts (see Appendix A).³ California licenses 15 different specialties. Table 3.2 summarizes the licensing system in all of the states identified by at least one source as discipline-based as well as the states with generic licensing that were selected as comparison states.

Most of the discipline-based licensing states define the disciplines in terms of the subject matter of the comparable NCEES exams. Rhode Island provides no discipline definitions, but indicates that it allows no overlapping practice between disciplines. Massachusetts also has no published definitions, but it allows engineers to work outside their licensed area with board approval. Guam is the only jurisdiction besides California that restricts the *direction* of overlapping practice for some disciplines. Industrial engineers may not engage in the incidental practice of other disciplines licensed in Guam (civil, electrical, chemical, mechanical and structural) and chemical engineers may not overlap into civil, electrical or mechanical. This use of the term "overlap" to mean work performed that is "incidental" or "supplemental" to the "normal" work of a specific engineer is common in the discipline-based licensing states.

A second meaning of the term "overlap" is used by states with "generic" licensing. Licensees, recognized as "professional engineers," may practice any type of engineering, as long as they are competent through education or experience. This is a modified form of self-certification.⁴

³ Although their published codes identify a limited number of disciplines, a telephone interview determined that Massachusetts licenses 46 branches of engineering. In many cases, there is no appropriate NCEES exam.

⁴ A third meaning of "overlap," explored in some depth in Chapters 8, 9, and 10 of this report, refers to commonalities in education, expected knowledge as defined by the content of NCEES exams, and job tasks between various engineering disciplines.

While registered engineers must pass an exam, presumably based on their education, they may practice in any branch of engineering for which their experience equips them. They and their clients are the sole judges of that competence unless errors occur that require them to demonstrate, after the fact, an appropriate level of competency.

Selection of Ten Comparison States

SB 2030 directed a review of alternative methods of regulation in comparable states. ISR defined comparability in terms of population size, density, percent urban, amount of building activity as measured by number of residential building permits and the dollar value of heavy construction. It seemed important to include demographically comparable states that varied in their licensing structure so states were ranked on the demographic variables using 1990 and 2000 data from the U.S. Census of Population and Housing and the 1997 Economic Census. Each state was identified as having generic or discipline-based licensing by reading their state codes and comparing this with the states' self-classification in California's Board survey.

Ten comparison states were selected by ranking states on the demographic and construction measures and taking, in addition to California, the top five in each licensing category. Since there are relatively few states with discipline-based licensing, several large states with generic-based licensing were passed over in order to include what were initially assumed to be the largest discipline-based states. Thus, the generic licensing states included the four highest ranking states in terms of population size, density, percent urban, number of building permits and dollar value of heavy construction (Florida, New York, New Jersey and Illinois). Choice of the fifth generic state (North Carolina) gave more weight to the construction variables, while retaining as much strength as possible in the demographic ones. North Carolina was selected over Michigan because the former provided more variety in regulatory models (see below). States initially selected as discipline-based licensing states included Massachusetts, Ohio, Pennsylvania, Texas and Rhode Island. (Table 3.4)

After conducting interviews with state boards, ISR determined that eight of the ten selected states really have generic licensing. Only two of the 16 states with discipline-based licensing are sufficiently large and urban to be considered comparable to California: Massachusetts and Rhode Island. Rhode Island is included because it ranks 2nd and 3rd in density and percent urban respectively, even though it ranks low in population (43rd), the number of building permits (43rd) and the dollar value of heavy construction (42nd). It is, therefore, not a strong comparison state for California. Massachusetts is a better comparison in terms of population size (ranked 13th), percent urban (5th) density (3rd), and the dollar value of heavy construction (10th), even though it is close to the median in the amount of building activity (26th in building permits). The states most comparable to California have chosen generic licensing. (Table 3.4)

After selection of the comparison states, four independent sources, in addition to ISR's reading of state codes, were used to confirm a state's licensing system. These included: NSPE's 2001 report, and surveys by NCEES, California's Board, and CSPE. Of 16 states and territories identified by at least one source as having discipline-based licensing, agreement on the type of licensing occurred on only seven. All five sources rated and agreed that Nebraska, Nevada, and the Northern Mariana Islands had discipline-based licensing. Four sources rated and agreed that Hawaii and Alaska were discipline-based states. And three rated and agreed that California and the District of Columbia offered discipline-based licensing. Although three sources agreed on Rhode Island and Massachusetts as discipline-based licensing states, the NCEES 2000 report listed Rhode Island as a generic state and the NSPE 2001 summary identified Massachusetts as generic as well. (Table 3.2)

Regulatory Model

A third, but less important criteria in the selection of comparison states was its regulatory model. Since the model's importance could not be determined in advance -- and demographic comparability and licensing structure seemed on *a priori* grounds to be more important -- this feature was used to select among several reasonably large states with generic licensing. In *Questions a Legislator Should Ask*, Benjamin Shimberg and Doug Roederer define five models that describe the organization of professional and occupational regulation in the states.⁵ These vary from a board-dominated model (A) to an agency-dominated model (E), with shared power and responsibilities characterizing models in between. Developing a questionnaire that, among other things, measured the division of responsibility between board and agency on the major regulatory tasks, ISR interviewed board or agency staff in California and each of the comparison states. This section of the interview sought staff assessments of the division of responsibility between the board and agency in their state on each of the following tasks:

- Hiring board and agency staff
- Making decisions regarding office location, purchasing and procedures
- Maintaining financial records for licensing
- Setting qualifications for those taking the exams
- Collecting fees for the exams
- Collecting fees for the renewal of registration
- Answering inquiries from licensees and the public
- Mailing applications for licensing and renewals
- Issuing licenses
- Handling complaints
- Disciplining licensees

Table 3.5 summarizes staff responses to the questions used to determine the distribution of responsibilities between board and agency. (See Appendix B for the questionnaire.)

California and its ten comparison states fall into two fairly clear categories. California, along with Texas, North Carolina, Ohio, and Rhode Island are board-dominated states. New York, Illinois, Pennsylvania, Massachusetts, and New Jersey are agency-dominated in varying degrees with New Jersey the most balanced. Florida is somewhat unique because a private corporation serves as the agency in that state, providing most of the agency's functions. Where appropriate, this report will explore whether regulatory structure is related to other licensing features.

Exempt Employment

California and its comparison states exempt from registration engineers employed in a variety of settings.⁶ Seven of the eleven states, including California, exempt between 10 and 14 categories of employment settings, although the particular categories vary with the state. New Jersey has the fewest exemptions (3). (Table 3.6)

⁵ Benjamin Shimberg and Doug Roederer, with Kara Schmitt, Editor, *Questions a Legislator Should Ask*, Second Edition, Council on Licensure, Enforcement and Regulation, Lexington, Kentucky: 1994. See especially pages 18 - 23.

⁶ This discussion is based on the National Society of Professional Engineers *Engineering Licensure Laws: Summary and Analysis*, 2001.

California and all of the comparison states exempt employees and subordinates of licensed engineers. All but one of the eleven states (New Jersey) exempts engineers employed by public utilities or manufacturing firms. Conversely, only Florida and Texas exempt engineers employed in academia and only North Carolina exempts other unspecified licensed professions.⁷ Five states, however, exempt specific licensed professions, most typically architecture, but also land surveying, landscape architecture, fire sprinkler contractors, and -- in California -- licensed contractors, architects and realtors. All but two of the eleven states exempt federal government employees (Florida and New York), engineers engaged in manufacturing or scientific research (New Jersey and Ohio), work on one's own property (New Jersey and New York), and persons engaged in temporary practice (Illinois and Texas). In contrast, only Florida and Pennsylvania exempt the incidental practice of engineering by other professions and only California and Texas exempt persons testifying as expert witnesses.

State and local government employees are generally not exempt in California and the comparison states. Only Florida, Illinois and Ohio exempt engineers employed by state and local government, while New York exempts local government employees only. Similarly, public transportation officers are more often not exempt, although five states (Illinois, Massachusetts, New York, North Carolina and Rhode Island) do exempt them from registration. On the other hand, engineers employed by industrial firms or corporations are usually exempt from registration, with Florida, New Jersey, Ohio and Rhode Island the only exceptions. (Table 3.6)

Along with its use of title acts and one-directional allowable overlap, California appears to be unique in excluding civil engineers from most exemptions. That is, Chapter 7 of the Business and Professions Code, Paragraph 6747 exempts manufacturing, mining, public utility, research and development and other industrial corporations from having to employ a licensed engineer for the performance of engineering work *unless* it involves civil engineering. This interpretation is reinforced by the *Plain Language Pamphlet of the Professional Engineers Act and the Board Rules* that prohibits an unlicensed civil engineer in an exempt industry from serving as a reference for someone applying for licensing.⁸ In contrast, unlicensed mechanical and electrical engineers may be used if they work in an exempt setting.

The widespread use of exemptions from licensing means that, in California and throughout the nation, many practicing engineers are not licensed. This state of affairs may undercut the main justification for licensing -- protection of public health, safety and welfare. A common argument is that only unsophisticated consumers of engineering services require the protection of licensing. However, consumers include employees of exempt employers and the public that purchases products and uses facilities developed by these employers, even though they are not direct purchasers of the engineering services. Placing public health and safety in the hands of corporations that are beholden first to their shareholders may be placing consumers at risk -- unless we can determine that what engineers do has no impact on public health, safety and welfare, or that some branches of engineering pose less of a threat than others. Later chapters of this report will attempt to deal with this issue.

⁷ The Texas exemption does not appear in the NSPE summary, but was communicated personally to ISR.

⁸ Section 2, Question 26.

Table 3.1. Historical Development of Engineering Licensing in California

Year	Defined as Title Act	Defined as Practice Act	Defined as Title Authority	Removed as Title Act
1929		Civil		
1931			Structural	
1947	Chemical Electrical Mechanical Petroleum			
1965(TS) 1967 (SR)	Metallurgical Industrial			
1967		Electrical Mechanical		
1970s	Agricultural Control systems Corrosion Fire Protection Manufacturing Nuclear Quality Safety Traffic			
1982			Geotechnical	
1999				Corrosion Quality Safety

Authority to recognize new branches moved from the legislature to the Board of Registration in 1968, returning to the legislature in 1985.

Table 3.2. Source of Identification as Discipline-Based or Generic Licensing State

State	NSPE 2001 ¹	NCEES 2000 ²	CSPE Survey ²	Board Survey ³	ISR ⁴
Alaska	Discipline	Discipline	Discipline	N/A	Discipline
Arizona	Generic	Generic	N/A	N/A	Discipline
California	Discipline	Discipline	N/A	N/A	Discipline
Delaware	Discipline	Generic	N/A	N/A	Generic
District of Columbia	Discipline	Discipline	N/A	N/A	Discipline
Florida	Generic	Generic	Generic	N/A	Generic
Guam	Discipline	Generic	Discipline	Discipline	Discipline
Hawaii	Discipline	Discipline	N/A	Discipline	Discipline
Illinois	Discipline ⁵	Generic ⁵	N/A	Generic	Generic ⁵
Louisiana	Discipline	N/A	N/A	Discipline	Both
Massachusetts	Generic	Discipline	N/A	Discipline	Discipline
Nebraska	Discipline	Discipline	Discipline	Discipline	Discipline
Nevada	Discipline	Discipline	Discipline	Discipline	Discipline
New Jersey	Generic	Generic	N/A	N/A	Generic
New York	Generic	Generic	Generic	Generic	Generic
North Carolina	Generic	Generic	Generic	Generic	Generic
Northern Mariana Islands	Discipline	Discipline	Discipline	Discipline	Discipline
Ohio	Generic	Generic	Generic	Generic	Generic
Pennsylvania	Generic	Generic	N/A	N/A	Generic
Rhode Island	Discipline	Generic	N/A	Discipline	Discipline
Texas	Generic	Generic	N/A	Not Clear	Generic
Vermont	Generic	Discipline	N/A	Discipline	Discipline
Virgin Islands	Generic	N/A	N/A	Discipline	Discipline
Wyoming	Generic	Discipline	Generic	Discipline	Discipline

¹NSPE does not define their use of the terms "Generic" and "Discipline"

²Both NCEES and the CSPE survey use the same definitions for the terms "Generic" and "Discipline". Both sources define "Discipline" as "A discipline-specific engineer, restricted to practice in a specific field." Both sources define "Generic" as "A professional engineer limited to practice to his/her field(s) of expertise."

³Board Survey asked states "How does your state register engineers? Generic, quasi-generic, or by discipline?"

⁴ISR defines discipline states as those states that specify a discipline on the license and on the seal. ISR defines generic states as those states whose license and seal says "professional engineer" only.

⁵Structural engineers licensed separately.

Table 3.3. Status of Engineering Disciplines¹ in California and the Nation

	Regulated in California	Not Regulated in California
NCEES Exam	Agricultural	Building/ Architecture
	Chemical	Environmental
	Civil	Mining/ Mineral
	Control Systems	Naval Architecture/ Marine
	Electrical & Computer ²	
	Fire Protection	
	Industrial	
	Manufacturing	
	Mechanical	
	Metallurgical	
	Nuclear	
	Petroleum	
	Structural	
No NCEES Exam	Geotechnical ^{3,4}	Aerospace ⁴
	Traffic ³	Bioengineering
		Biomedical
		Construction ⁴
		Corrosion ⁴
		Quality ⁴
		Safety ⁴
		Software ⁵

¹This list of engineering disciplines includes: degrees from more than one of the seven largest California universities; disciplines regulated in one of the ten comparison states (Florida, Illinois, Massachusetts, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, and Texas); or specialty exam offered by NCEES.

²The NCEES exam is Electrical & Computer, but the California license is for Electrical.

³Geotechnical and Traffic are depth modules on the NCEES Civil exam, however there is no separate Geotechnical or Traffic NCEES exam.

⁴The Massachusetts board regulates these disciplines although there is no NCEES exam.

⁵The Texas board regulates this discipline, although there is no NCEES exam.

Table 3.4. Ranking on Selected Demographic and Construction Variables of Potential Comparison States

State	Ranking Based on 1990 Census					Ranking Based on 2000 Census Data					Types of Licenses
	Population	Percent Urban	Density	Building Permits	Average	Population	Building Permits	Dollar Value ¹ in Heavy Construction	Average ²	Selected	
California	1	2	12	1	4.00	1	2	1	3.60	✓	Discipline
Florida	4	4	10	2	5.00	4	1	3	4.40	✓	Generic
New York	2	6	6	12	6.50	3	12	5	6.40	✓	Generic
New Jersey	9	1	1	22	8.25	9	16	16	8.60	✓	Generic
Illinois	6	11	11	10	9.50	5	9	4	8.00	✓	Generic ³
Massachusetts	13	5	3	24	11.25	13	26	10	11.40	✓	Discipline
Ohio	7	20	9	9	11.25	7	10	7	10.60	✓	Discipline ⁵
Pennsylvania	5	21	8	11	11.25	6	13	6	10.80	✓	Discipline ⁵
Maryland	19	9	5	13	11.50	19	22	22	15.40		Generic
Michigan	8	18	14	8	12.00	8	8	11	11.80		Generic
Virginia	12	19	15	5	12.75	12	11	12	13.80		Generic
Texas	3	16	29	4	13.00	2	3	2	10.40	✓	Discipline ⁵
Georgia	11	26	21	6	16.00	10	4	14	15.00		Generic
Washington	18	17	28	3	16.50	15	14	9	16.60		Generic
North Carolina	10	37	17	7	17.75	11	5	8	15.60	✓	Generic
Connecticut	27	10	4	31	18.00	29	35	27	21.00		Generic
Rhode Island	43	3	2	43	22.75	43	45	42	27.00	✓	Discipline ⁴

¹Dollar value of heavy construction from Economic Census 1997²Mixed average using 2000 data for population and building permits, 1997 dollar value of heavy construction and 1990 data for percent urban and density. Percent urban and density were not available for 2000.³Plus structural⁴Limited number (chemical, civil, electrical, environmental, mechanical, and structural)⁵Texas, Pennsylvania and Ohio were originally identified as discipline-based licensing states through a reading of their state codes and California's 1998 Board Survey. After selection as comparison states, this categorization was revised in light of interviews with the selected states and comparisons with the other sources. (See Table 4.2)

Table 3.5. Board vs. Agency-Dominated Classification of California and Ten Comparison States

	Board- Dominated States					Agency-Dominated States					
	TX	NC	OH	CA	RI	NJ	MA	IL	PA	NY	FL
Who is responsible for hiring Board Staff?	B	B	B	B	B	A	E	O	A	E	A/C
Who is responsible for hiring Agency staff?	N/A	N/A	N/A	A	N/A	A	A	A	A	A	A
Who makes decisions about office location, purchasing, and procedures?	B	B	B	B	O	A	A	A	A	A	A/C
Who maintains the financial records for licensing?	B	B	B	B	B	A	A	A	A	A	A/C
Who sets qualifications for people taking the exams?	B	B	B	B	B	B	C	O	O	A	A/C
Who collects the fees for exams?	B	B	B	B	B	O	O	O	O	A	A/C
Who collects the fees for renewal of registration?	B	B	B	B	B	A	A	A	A	O	A/C
Who answers inquiries from licensees and the public?	B	B	B	B	B	B	A	A	A	A	A/C
Who prepares and mails applications for licensing and renewal?	B	B	B	B	B	A	A	A	A	A	A/C
Who issues licenses?	B	B	B	B	B	A	A	A	A	A	A/C
Who handles complaints?	B	B	B	B	B	B	A	O	D	A	A/C
Who disciplines licensees?	B	B	B	B	B	B	D	A	D	A	A/C
How are complaints against unlicensed individuals handled?	B	R	R	O	R	R	R	A	A	R	A
Percentage Distribution of Responsibilities											
Board	100	91.7	91.7	84.6	83.3	30.8	0.0	0.0	0.0	0.0	0.0 (0.0)
Agency	0.0	0.0	0.0	7.7	0.0	53.8	61.5	69.2	69.2	76.9	15.4 (100.0)
All Others	0.0	8.3	8.3	7.7	16.7	15.4	38.5	30.8	30.8	23.1	84.6 (0.0)

¹Florida is unique in having a Corporation that works on behalf of the Agency with the Board.

KEY	A=Agency	A/C=Corporation working on behalf of Agency
	B=Board	C=Board Initiated, Agency Approval Required
	O=Other	D=Agency Initiated, Board Approval Required
	R= Referral to various outside agencies	

Table 3.6. Exemptions to Licensing in California and Ten Comparison States

Exemptions	CA	FL	IL	MA	NJ	NY	NC	OH	PA	RI	TX
1. Other Licensed Professions (general)							✓				
2. Specific Licensed Professions	✓	✓	✓			✓	✓				
3. Temporary Practice	✓	✓		✓	✓	✓	✓	✓	✓	✓	
4. Employees and Subordinates	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5. Federal Government Officer or Employee	✓		✓	✓	✓		✓	✓	✓	✓	✓
6. State Government Officer or employee		✓	✓				✓				
7. Local Government Officer or Employee		✓	✓			✓	✓				
8. Public Utility Officer or Employee	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
9. Public Transportation Officer or Employee			✓	✓		✓	✓			✓	
10. Manufacturing or Scientific Research	✓	✓	✓	✓		✓	✓		✓	✓	✓
11. Industrial Firm or Corporation	✓		✓	✓		✓	✓		✓		✓
12. Manufacturing Firm or Corporation	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
13. Academia		✓									
14. Incidental Practice of Engineering by Other Professions		✓							✓		
15. Expert Witness	✓										✓
16. Work on Own Property	✓	✓	✓	✓			✓	✓	✓	✓	✓
17. Other Exemption	✓	✓	✓	✓		✓	✓	✓	✓		✓
Public Works Provision											
18. Statute Prohibits Exemption of Public Works		✓	✓		✓			✓			✓
19. Public Works Exempt Below Project Cost						✓		✓			✓
20. Public Works Exempt Below Project Size											✓
Private Works Provision											
22. Private Works Exempt Below Project Cost						✓	✓				
23. Private Works Exempt Below Project Size						✓	✓				✓
Building Design											
25. Statute Lists Buildings Only PE May Design				✓	✓						
26. Legislation to List Buildings Only PE May Design											
27. Statute Limits Buildings PE May Design			✓		✓						
28. Legislation to Limit Buildings PE May Design											
29. Statute Exempts Building Types	✓			✓		✓	✓	✓			✓
30. Legislation to Exempt Building Types								✓			

Excerpt from 2001 NSPE Summary of Licensure Laws, selected states